

CLAIMS

What is claimed is:

- 5 1. A lamp, comprising:
- a circuit board having two opposed ends;
 - a plurality of light-emitting diodes (LEDs) disposed upon the circuit board; and
 - a pair of projections extending outwardly from each of the two opposed ends, the pair
- of projections being electronically connected to the LEDs.

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2. The lamp as recited in claim 1, further comprising a tubular sheath housing the circuit board, wherein the sheath is substantially translucent to light emitted by the LEDs.

3. The lamp as recited in claim 2, wherein a pair of ends caps are installed in opposite ends
5 of the sheath, wherein the end caps are adapted to properly position and hold the circuit board in the sheath.

4. The lamp as recited in claim 3, wherein each of the end caps has a plurality of holes adapted to receive a corresponding projection of the circuit board.

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5. The lamp as recited in claim 4, wherein each of the end caps has two holes, and wherein the circuit board comprises two projections extending outwardly from each of the two opposed ends.

15 6. The lamp as recited in claim 4, wherein when the end caps are inserted into the opposite ends of the sheath such that the projections of the circuit board reside in the corresponding holes in the end caps, the circuit board is properly positioned and held in the sheath.

7. The lamp as recited in claim 4, wherein each of the end caps comprises at least one terminal for connecting to an electrical power source.

8. The lamp as recited in claim 7, wherein the at least one terminal comprises a pair of pins
5 extending outwardly in parallel.

9. The lamp as recited in claim 8, wherein the pins are adapted for insertion into a bi-pin lamp holder.

10 10. The lamp as recited in claim 1, wherein the light emitting diodes (LEDs) emit visible light.

11. The lamp as recited in claim 10, wherein the light emitting diodes (LEDs) emit red light having wavelengths between about 620 nanometers and approximately 680 nanometers.

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12. The lamp as recited in claim 10, wherein the light emitting diodes (LEDs) emit red light having wavelengths of about 660 nanometers.

13. The lamp as recited in claim 1, further comprising an electric circuit configured to provide electrical power to the light emitting diodes (LEDs), wherein the electric circuit comprises components mounted to the circuit board.

5 14. The lamp as recited in claim 13, wherein the electric circuit comprises a first section configured to provide electrical power to one of the two LED arrays, and a second section configured to provide electrical power to the other LED array.

10 15. The lamp as recited in claim 14, wherein the first and second sections each comprise at least one resistor mounted to the circuit board and a bridge rectifier circuit mounted to the circuit board.

15 16. The lamp as recited in claim 1, wherein the LEDs are grouped to form two LED arrays, the LEDs of one of the two LED arrays being mounted along opposite edges of one of the sides of the circuit board, and wherein the LEDs of the other LED array are mounted along opposite edges of the other side of the circuit board

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16. A light fixture, comprising:

a lamp, comprising:

a substantially planar circuit board having two opposed sides;

a plurality of light-emitting diodes (LEDs) grouped to form two LED arrays,

5 wherein the LEDs of one of the two LED arrays are mounted along
opposite edges of one of the sides of the circuit board, and wherein the
LEDs of the other LED array are mounted along opposite edges of the
other side of the circuit board; and

an enclosure housing the lamp.

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17. The light fixture as recited in claim 16, wherein the enclosure has an opening for light produced by the lamp to escape the enclosure, and wherein the light fixture further comprises a lens positioned over the opening.

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5 18. The light fixture as recited in claim 17, further comprising a guard positioned adjacent to a side of the lens opposite the enclosure such that the lens is positioned between the guard and the enclosure.

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10 19. The light fixture as recited in claim 16, wherein the lamp further comprises a tubular sheath housing the circuit board, and wherein the sheath is substantially transparent to light emitted by the light-emitting diodes (LEDs).

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15 20. The light fixture as recited in claim 19, wherein the lamp further comprises a pair of ends caps installed in opposite ends of the sheath, wherein the end caps are adapted to properly position and hold the circuit board in the sheath.